Title

Heavy drinking occasions in Australia: Do context and beverage choice differ from low-risk drinking occasions?

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Abstract

Introduction and Aims: The aim of the current study is to look for differences in drink choice and drinking location between a recent heavy drinking occasion (RHDO) and usual low risk occasions among those that recently had both types of drinking occasion.

Design and Methods: 774 respondents to a population-based survey reported having a RHDO (8+ Australian Standard Drinks (ASD) for females, 11+ASD for males) in the past six months also reported that their usual drinking occasion in at least one location involved less than five ASD. Drink choice and drinking locations for the RHDO and for usual low risk occasions were compared using confidence intervals.

Results: The RHDO was more likely than usual low risk occasions to occur away from licensed premises (59%), despite a higher percentage of respondents reporting drinking at a pub, bar or nightclub on a RHDO (28%) than on a usual low risk night (12%). A higher percentage of respondents nominated bottled spirits (22%) as their main drink for their RHDO than primarily drank bottled spirits on a usual low risk occasion (11%), with the converse true for bottled wine (21% and 33% respectively).

Discussion and Conclusions: While the high proportion of RHDOs that occurred at least in part at pubs or nightclubs was not surprising, a high proportion also occur in private homes. Previously found links between heavy drinking and beer may be a reflection of the usual drink choice of heavier drinkers, rather a choice specific to a particularly heavy occasion.
**Introduction**

Heavy episodic drinking is a key driver of alcohol-related harm (1). Even after total volume of alcohol consumed is controlled for, heavy drinking occasions are related to injury and disease (2, 3), particularly those that occur in the short term (4). The location of consumption appears to be important when examining heavy drinking and harm; in Western Australia those who consumed alcohol on licensed premises were more likely to be harmed (5), while the majority of big nights out for young people sampled in another Australian state, Victoria, started on private premises (6).

To date, there is more research on what heavy drinkers drink generally than on what they drink when they drink heavily. For example, there is research from the US showing that beer drinkers are more likely to ‘binge’ drink (7), but this may just reflect who chooses to drink beer, rather than beer being a popular drink specific to binge drinking occasions. There is also evidence that beer is disproportionately consumed in occasions where five or more drinks are consumed (8), however, despite the risks involved, this would not always be considered a heavy drinking occasion.

Often research comparing heavy and low risk occasions is based on comparisons of heavy and low-risk drinkers, rather than occasions. There is little research in Australia that investigates differences in alcohol consumption between low-risk and heavy occasions in a sample where all respondents have had both types of occasion. Therefore it is difficult to ascertain if there are any beverage choice or location differences between the drinking occasions to inform policy aimed at reducing harm from heavy drinking.

The aim of the current study is to compare key characteristics of a recent heavy drinking occasion with typical low risk drinking occasions, focusing on drinking locations and types of beverage chosen.

**Method**

**Sample and Survey**

Data were obtained from respondents to the Alcohol Consumption and Purchasing Study (the Australian arm of the International Alcohol Control (IAC) study). The survey was adapted from the New Zealand IAC survey (9). A total of 2020 people from across Australia agreed to participate in the study, with an American Association for Public Opinion Research response rate (10) of 37.2%. Computer assisted telephone interviews were conducted with a sample collected using probabilistic sampling methods in conjunction with random digit dialling. Risky drinkers (those who stated they consumed ≥5 ASD at least once a month) were oversampled. One third of those who did not meet this criterion were asked to participate.

**Low Risk Occasions**

When identifying low risk occasions (< 5 Australian Standard Drinks (ASD) in one night; 11) the survey section on usual alcohol consumption was used. Respondents were asked about where they drank, how often and what they usually drank at each of those places in a location-based loop. That is, if a respondent stated they drank alcohol in their home, they were then asked how often they did this, what beverage types they consumed on a usual drinking occasion in their home, and how many drinks of each beverage type they consumed on a usual occasion. This was repeated for each location relevant to the respondent. Any occasions where the respondents stated that their ‘usual’
drinking occasion at this location involved less than five ASD was counted as a low risk occasion and
the location and beverage choices of these drinking occasions were used in the current study.

Heavy Drinking Occasions

Respondents were also asked specifically about a Recent Heavy Drinking Occasion (RHDO), a time in
the last six months where they consumed at least 8/11 ASD for females/males. The 1005
respondents who had at least one heavy drinking occasion in the past six months were asked about
the places they drank at and beverages they consumed on their last RHDO. In total there were 783
respondents who had a RHDO and also stated that their usual level of alcohol consumption in at
least one location was five or less drinks, a further nine respondents had at least one relevant
missing data point for the analyses in this paper. Analyses were run with and without these
respondents included and as this made no difference to the results, the sample in this paper is the
774 respondents with no missing data (60.7% male, mean age of 36.6, SD = 14.1).

Data Analysis

All results are weighted to adjust for the likelihood of being surveyed based on age, sex, location and
drinking status. Due to the different types of data collected to measure low risk and heavy drinking
occasions, confidence intervals were compared to examine differences in prevalence of drinking
location and drink type between the two types of occasion, a conservative statistical approach.

Results

Within the sample who had both RHDO and low risk occasions, 23% of respondents reported heavy
drinking occasions separate from the specific RHDO (8+/11+ for females/males) at least once a week
(26% of males and 19% of females). Low risk drinking occasions were more common, with 48% of
the sample reporting a low risk drinking session once a week or more (49% of males, 47% of
females).

Each participant was deemed to have spent a percentage of their time on their RHDO at each
location based on their responses. For example, if a respondent drank at 2 locations on their RHDO,
at their own home and at the pub, each location would be noted as 50% for that respondent. The
prevalence of each location in respondents’ RHDOs is shown in Table 1. The percentage of low risk
occasions that the respondent had over the past six months per location is shown in Table 1.
Respondents were more likely to drink in settings other than licensed venues on a RHDO (59%) than
on a usual low risk occasion (50%); this result was primarily driven by the high percentage of
respondents who spent time drinking at someone else’s home on their RHDO (26%) and the number
of low risk occasions recorded at restaurants (25%). There were exceptions to this rule: low risk
occasions were more likely to happen in the workplace (8%) and in public space (6%) than RHDOs
(1% and 2% respectively), while people were more likely to drink at a pub, nightclub or bar on their
RHDO (28%) than on a low risk occasion (12%).

Most drink choices between RHDO and low risk occasions (Table 2) were similar, however the
percentage of people nominating bottled spirits as their drink of choice on the RHDO (33%) was
higher than people who primarily drank spirits on low risk nights (11%), with the converse true for
bottled wine (20% of big nights and 33% of low risk occasions).
Further analyses examining age and sex differences were undertaken (see supplementary material online), with no notable variation from the overall findings presented here.

**Discussion**

The main aim of this paper was to compare drink choice and location on a RHDO with usual low risk occasions. We found that respondents were more likely to drink spirits, and drink at a home other than their own or at a pub, bar or nightclub, on a RHDO than they were during low risk drinking occasions. Conversely, bottled wine and drinking in the workplace, in public or at a restaurant were more likely to form part of a low risk night.

The primary limitation of this study is that the information on the two different types of occasion was collected using different methods. Questions on the RHDO were based on one recent night, while data about low risk occasions were taken from more general drinking questions on ‘usual’ drinking sessions at each location. Therefore, some of the low risk occasions may have formed part of a risky or heavy drinking occasion that involved two or more locations. Further research with more comparable data on how people drink on low risk and heavy drinking occasions is recommended.

While links between beer and heavier drinking occasions have been found in the past (7, 8), results here suggest that this may be a reflection of the people who choose to drink beer doing more binge drinking, rather than beer being particularly associated with a binge drinking occasion. Overall, drinking context seems to differ more between drinking occasions than by drink type, with RHDOs more likely to occur off licensed premises. The notable exception to this was the higher percentage of RHDOs at a pub, nightclub or bar; in line with previous findings on where people drink before experiencing harm (6). Results from this study indicate policy changes aiming to reducing heavy drinking occasions would be better served by focusing on the location of these occasions than on the drink types consumed during them. Whether the high percentage of ‘RHDOs’ occurring elsewhere than in licensed premises is driven by situational factors or by the cheaper price of alcohol is also worthy of future investigation.

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